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Memorandum

Date: 27 May 2014

Subject: Leichner Landfill Existing Conditions

From: Read Stapleton, AICP

To: Seth Otto, AICP

In conjunction with the Leichner Landfill master planning process, BergerABAM has prepared the following summary of the existing zoning and development standards that apply to the site and their implications for the master plan alternatives under consideration.

EXISTING CONDITIONS

The following paragraphs explain the zoning and development standards that apply to the property.

Zoning Designations

The land area subject to this master plan process is approximately 132.6 acres and is composed of the former Leichner landfill site and adjoining properties. Approximately 124.6 acres of the site, including the former landfill property, are currently zoned Light Industrial (IL). An approximately 8-acre area zoned Single Family Residential (R1-7.5) is located north of the former landfill. The following table identifies the existing zoning and acreage by tax lot number.

Table 1. Leichner Master Plan Site Zoning

Tax Lot	Acreage / Zoning
Former Landfill:	
199858	33.66 (IL)
199843	25.56 (IL)
199869	9.92 (IL)
Koski Property:	
199845	2.12 (IL)
199863	7.42 (IL)
105740	25.49 (IL)
Fleischer Property:	
199851	5 (IL)
199861	0.99 (IL)

Tax Lot	Acreage / Zoning
199854	3.45 (IL)
Stormwater Facility and NE 99th Street ROW:	
199856	11.03 (IL)
Residential Property:	
199866	7.13 (R1-7.5)
199865	0.83 (R1-7.5)
Total Acreage	132.6

Of the approximately 19 acres located north of the former landfill, approximately 11 acres are zoned IL and approximately 8 acres are zoned R1-7.5. It is anticipated that much of the 11-acre IL property will continue to be used for stormwater management and will be the site of the future NE 99th Street connection. The remainder of the 11 acres of IL land may be used for residential. Master plan alternatives that involve residential use on this 11-acre IL property will require a comprehensive plan amendment and zone change to convert any remaining areas to a single-family residential zoning designation.

Site Design Standards

The design of future uses on the property must consider and adhere to the development standards that apply to the base zones of the site. The following table lists the setback requirements for the IL and R1-7.5 properties.

Table 2. Setback Requirements

Standards	Zone	
	IL	R1-7.5
Setbacks:		
Front	20 ft	10 ft
Side (street)	20 ft	10 ft
Side (interior)	0	5 ft
Rear	0	10 ft
Screening:		
From R1-7.5		
Separated by street	L2 (10 ft)	None
Not separated by street	L3 (10 ft)	None
From IL		

Standards	Zone	
	IL	R1-7.5
Separated by street	L2 (10 ft)	L3 (10 ft)
Not separated by street	None	L1 (10 ft)
Max Building Height	100 ft	35 ft
Perimeter parcels or adjacent to R1-7.5 zone	60 ft	N/A
Residential Density for Planned Unit Developments (per acre)	N/A	5.8 - 4.1
Max Lot Coverage	100%	50%
Min Landscaped Area	10%	N/A
Min Lot Area	N/A	7500 sf
Max Average Lot Area	N/A	10,500 sf
Average Min Lot Width for Each Lot	N/A	50 ft
Average Min Lot Depth for Each Lot	N/A	90 ft
Parking & Loading		
Loading Berths:		
Industrial/Commercial/Public Utility Buildings		
Less than 5,000 sf	0	
5,000 to 25,000 sf	1	
25,000 to 50,000 sf	2	
Each additional 50,000 sf or fraction thereof	1	N/A
Offices/Public Buildings/Recreation or Entertainment Facilities/Etc.		
Less than 30,000 sf	0	
30,000 to 100,000 sf	1	
100,000 sf and over	2	

Road Design Standards

It is anticipated that NE 99th Street will be extended through the property adjacent to the northern edge of the landfill property. Clark County designates the road as an urban minor arterial with the standard cross-section shown in Table 3.

Table 3. Road Cross-Section

Minor Arterial - 2 Lanes with Center Turn Lane (CTL) and Bike Lane	
ROW Width	72 ft
Roadway Width	48 ft
Number of Travel Lanes and Surface	2 - impervious pavement

Minor Arterial - 2 Lanes with Center Turn Lane (CTL) and Bike Lane	
Lane Width	12 ft
CTL Width and Surface	12 ft - impervious pavement
Bike Lane (2 Sides) Width	6 ft
Sidewalk Width and Surface	6 ft - permeable pavement allowed (5 ft if detached)
Planter/LID/Utility	12 ft
Access Spacing:	
Min Full Access Intersection Spacing	500 ft
Driveway Access Spacing Based on Posted Speed of Arterial:	20 MPH: 85 ft 25 MPH: 105 ft 30 MPH: 125 ft 35 MPH: 150 ft 40 MPH: 185 ft

Critical Areas and Environmental Analysis

Subtitle 40.4 of the Clark County code regulates development impacts to environmentally sensitive "critical areas" which include flood hazard areas, wetlands, habitat conservation areas, critical aquifer recharge areas, and geologic hazard areas. In conjunction with its 2012 analysis, BergerABAM reviewed available Clark County Geographic Information Systems (GIS) data for mapped indicators of critical areas on the site. Clark County GIS indicated the presence of a water feature mapped as a riparian habitat conservation area in the western section of the former landfill (tax lot 199843). A BergerABAM scientist visited the landfill property and determined that the water feature was one of three stormwater ponds constructed to collect and convey runoff from the surface of the landfill and would not qualify as a riparian habitat conservation area. No US Fish and Wildlife Service National Wetland Inventory wetlands are mapped on the site, and a review of the Washington Department of Fish and Wildlife Priority Habitat and Species online map does not indicate the presence of sensitive or regulated natural resources on any of the subject parcels.

Perennial and annual grasses comprise most of the vegetation on the site. As part of its routine maintenance of the site, the county removes any weeds, invasive vegetation, and volunteer trees and shrubs that could threaten the integrity of the landfill cap, which is generally 3 feet below the surface.

BergerABAM's 2012 fatal flaw analysis determined that endangered or threatened species do not use the site and it does not provide critical habitat protected under the Endangered Species Act. A stated above, grasses comprise most of the vegetation on the site and it is not suitable

habitat for listed species that may occur elsewhere in the county. In 2012, county staff identified coyotes, mice, voles, rabbits, hawks, owls, and songbirds – all species habituated to human presence – as species that use the subject parcels. In addition, the stormwater ponds support waterfowl use.

A shallow aquifer and the deeper Troutdale aquifer underlie the landfill parcels (Washington State Department of Ecology 2012). The integrity of the landfill cap must be maintained to prevent the infiltration of precipitation through the landfill material and the consequent pollution of the groundwater and/or aquifers. The entire site is located in the Category 2 Recharge Area, based on its proximity to public drinking water sources. There are no prohibited uses in Category 2 Recharge Areas; however, certain uses may be required to obtain a Critical Acquire Recharge Area (CARA) permit. These uses include injection and disposal wells for industrial process water.

The entire site is located outside the flood area, meaning that risk for flooding on site is very low.

Geologic hazards are defined as areas subject to influence from surface and subsurface actions related to earth processes. Washington State's Growth Management Act requires that these areas be defined so that safeguards in development can be assured. In Clark County, geologic hazards include steep slope, landslide, seismic, and volcanic hazard areas.

The Clark County online Property Info Center indicates that the site contains relatively steep slopes of 15-25% along the perimeter of the former landfill and also shows that the site has National Earthquake Hazard Reduction Program (NEHRP) ratings of C and D, on a scale in which "A" is the least susceptible to seismic damage and "D" is the most susceptible. Soil type, slope, soil water saturation and other physical factors are used to determine NEHRP classifications. The Clark County online Property Info Center does not represent that liquefaction is a concern on the site as it indicates that the site has a low to very low risk of liquefaction based on the qualities of underlying soils.

Given the geological conditions on site, a Geological Hazard Review may be required for any site grading or development on or immediately adjacent to the steep slopes along the perimeter of the landfill where slopes exceed 15%. Demonstration of compliance with the seismic hazard provisions found in CCC 40.430.020(F) is met at the time of building permit issuance through evidence of compliance with the International Building Code (IBC)

Clark County uses Archaeological Predictive Modeling to determine the likelihood of cultural resources being discovered on the property. The classifications are determined based on the elevation of a site, distance to water, and soil order. Based on these criteria, the site is designated as having high or moderately high archeological probability. A cultural resources

study should be conducted on those portions of the site note occupied by the landfill prior to any development activities.